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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,494	01/11/2002	Simon Chu	RPS920010115US1	9283

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EXAMINER

PATEL, ANAND B

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,494	CHU ET AL.	
	Examiner	Art Unit	
	Anand Patel	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/11/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of the improper grammatical construction in line 13; "is initialize to" should be "is initialized to". Correction is required. See MPEP § 608.01(b).
2. The brief summary of the invention is objected to because of the improper grammatical construction on page 4, line 17; "is initialize to" should be "is initialized to". Correction is required. See MPEP § 608.01(d).
3. The detailed description of the invention is objected to because of the improper grammatical construction on page 15, line 21; "will also described" should be "will also be described". Correction is required. See MPEP § 608.01(g).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6765802 to Ridley, in view of US Patent No 6651180 to Wickeraad.

- As per claim 1, Ridley discloses a method for co-operative thermal management of a plurality of independent electronic devices (16, 18, 20; column 6, lines 2-6) within a common enclosure (10), comprising:

A method wherein each of said plurality of independent electronic devices has a thermal controller (39, 40, 42; column 6, lines 33-35); and

Measuring a temperature of each of said plurality of independent electronic devices

(column 8, lines 55-63) and for each of said plurality of independent electronic devices:

Determining if said measured temperature exceeds a threshold value for said independent electronic device (column 8, line 64 – column 9, line 5)

Ridley fails to disclose a system wherein priority numbers are designated to each of the electronic devices. Ridley also fails to disclose that when the measured temperature exceeds the threshold temperature, a count-down value is initialized to the designated priority number of that device.

Wickeraad discloses a timeout method comprising:

Designating a priority number for each of a plurality of independent electronic devices (column 5, lines 21-26); and

Initializing a count-down value to said designated priority number of said independent electronic device in response to a determination that said measured temperature exceeds a threshold value (column 5, lines 21-26; the threshold for the timeouts is the count-down value that is the prioritization of the electronic device). This method of prioritized power-down allows systems to keep more important functions running while having backup and less critical systems turned off.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Ridley and Wickeraad. The motivation to combine, as stated in Wickeraad column 5, lines 21-26, allows a processor to complete cycles long after a

catastrophic failure (system temperature exceeds threshold) occurs because peripheral devices are shut down. Thus, Wickeraad is in line with the spirit of the application in that both try to keep more important services available while less important peripherals are shut down.

- As per claim 2, Wickeraad discloses a method wherein said initializing a count-down value further includes initiating an interval timer (column 5, lines 15-17). Wickeraad teaches the use of individual timeouts, and as discussed above, it would be an obvious variation to initiate a single timer (and it would be inherent that when using timeouts a timing device is used).
- As per claim 3, Ridley discloses a method wherein said initializing a count-down value further includes waiting a first predetermined period of time before repeating said measuring of said independent electronic device in response to a determination that said measured temperature does not exceed said threshold value (events 190 and 160; column 9, lines 2-12)
- As per claim 4, Wickeraad discloses a method that further includes:
Determining if said count-down value is equal to zero (figure 3, item 154); and
Powering-down said independent electronic device in response to a determination that said count-down value is equal to zero (column 5, lines 23-26). Wickeraad fails to disclose repeating the temperature measurements.
Ridley discloses a method comprising:
Waiting a second predetermined period of time before obtaining a second temperature measurement of said independent electronic device and determining if said second temperature measurement exceeds said threshold value (figure 6, loop 160-180).

- As per claim 5, Wickeraad discloses a method that further includes:

Determining if said interval timer has expired (figure 3, item 154) in response to a determination that said second temperature measurement exceeds said threshold value (Ridley figure 6, item 180); and

Decrementing said count-down value, reinitiate said interval timer and repeat said determining if said count-down value is equal to zero (refer to discussion above, involving timeouts and count-down values) in response to a determination that said interval timer has expired (figure 3, item 154), otherwise repeat waiting a second predetermined period of time before obtaining a temperature measurement (Ridley figure 6, item 180).

6. Claims 6-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ridley, in view of Wickeraad, and further in view of US Patent Application Publication 2003/0084359 to Bresniker et al (Bresniker).

- As per claims 6-13 and 15, Bresniker discloses a method wherein each of said plurality of independent electronic devices has a service processor that remains operational when said electronic device is powered down (management unit of claim 17). Bresniker also discloses a powering-up of said electronic devices upon determination that a temperature has lowered beneath a threshold value (paragraph 56). This system allows computers to reinitialize themselves after a determination that the system has stabilized, thus allowing a more automated system.

Thus it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings to Ridley, Wickeraad, and Bresniker. The motivation to combine

comes from the ability in Bresniker to return the system to normal operation, once the temperature has lowered to a safe level. This allows for automatic restarting of system components once a suitable temperature has been measured without the need for a manual checking of temperatures followed by a rebooting.

- As per claim 14, Bresniker discloses an electronic device wherein said electronic device is a server blade (figure 3, item 300).
- As per claim 16, Bresniker discloses a data processing system further comprising:
A backplane coupled to said plurality of independent electronic devices (figure 1, item 106); and
A plurality of fans (paragraph 29)
- As per claims 17-24, the limitations are discussed in the rejections of previous claims above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No 4611289 to Coppola discusses a prioritized shutdown of computers when a power failure has occurred.

US Patent No 5761406 to Kobayashi et al disclose a system of prioritized saving using a timer and a counter.


US Patent No 6367022 to Gillespie et al teaches a power management strategy involving timeouts and resuming normal operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Patel whose telephone number is (571) 272-7211. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ABP


REHANA PERVEEN
PRIMARY EXAMINER